

ABSTRACT OF THE DISCLOSURE

By using an entry number (WRB number) of a re-order buffer 6, each of function units such as an operation unit 3, a store unit 4, a load unit 5, etc. notifies to the re-order buffer 6 the processing end for a instruction stored in 5 the entry concerned in the unit thereof. The load unit 5 manages the latest speculation state of a load instruction issued on the basis of a branch prediction success/failure signal output from the branch unit 2, and makes no notification to the re-order buffer 6 on the basis of WRB number for subsequent load instructions of a branch-prediction failed branch instruction 10 even when the processing of the instruction is finished. Accordingly, the re-order buffer 6 can re-use entries in which the subsequent instructions of the branch prediction failed branch instruction are stored.